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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/540,470	03/31/2000	Hiroshi Takano	080398.P257	2482

7590 03/30/2004

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EXAMINER

SLOAN, NATHAN A

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/540,470

Applicant(s)

TAKANO ET AL.

Examiner

Nathan A Sloan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 March 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.3.5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: page 11, line 21 refers to a modified controller in figure "3B." It appears applicant intended figure 4B.

Appropriate correction is required.

### *Drawings*

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1028" has been used to designate both IEEE 1394 and a selector in Figure 10. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 513, 514, 515, 518 of Figure 5, 624, 625, 628 of Figure 6, 740, 742, 748, of Figure 7, and 1020, 1024, 1025, 1026 of Figure 10. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-10 and 15-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Ogino et al. (6,038,625).

Ogino et al. teach a system and method for providing device identification, routing, and format conversion to facilitate network transmissions. Capability information is collected from a plurality of devices using IEEE 1394 standard network, which is then used for routing data to designated devices.

With respect to claim 1, the claimed “preparing capability information of each of a plurality of devices with regard to signal format” is taught in column 6, lines 66-67 through column 7, line 1 and in column 20, lines 64-67 through column 21, lines 1-2. The claimed “designating a device that ultimately receives a signal” is seen in Figure 7A, with the establishing of a connection and designation of a module ID to receive a signal. Capability information is collected into topology map 520, seen in Figure 8 and taught to be well known in the art in column 23, lines 13-15, which is used to produce transmission paths between the receiving device and transmitting device by analyzing routing information. A best route is

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determined by analyzing capability information including necessary format conversions by stream manager 335. Stream manager 335 identifies nodes to route data between a source and destination with consideration to necessary format conversions taught in column 18, lines 37-49. The best route is then selected that matches the transmitting device, receiving device, and signal format to provide data delivery. As seen in Fig. 15A-15E, commands are issued to devices on the transmission path to establish communications and control input/output at speeds established by the commands.

With respect to claim 2, the claimed capability information comprising “receiving, transmitting, and converting information” is taught in column 6, lines 66-67 through column 7, lines 1-12 with request and delivery of capability information that may involve protocol conversions depending on device characteristics.

With respect to claim 3, the claimed specifying devices in terms of order format is taught in column 22, lines 60-67 through column 23, lines 1-16; the specifying in terms of format is met as noted above by collection of formatting capability information.

With respect to claims 4 and 5, the claimed “seeking other devices capable of transmitting a signal in the same formats as the receiving device is capable of receiving” is met by the seeking of a best route by stream manager 335. As taught in column 19, lines 43-54 stream manager 335 works with a format manager to identify if input data formats for both source and destination are the same and making proper conversion or altering of paths in the event of a data type barrier, taught in column 18, lines 43-47, to provide the best route. As noted above, all of the devices are ordered into a topology map which is requested and used along with

capability considerations to form a data route. This process is seen in flowchart 950b of Figure 15E.

With respect to claim 6, the claimed capability information being “originally possessed in each of the plurality of devices” is taught in column 3, lines 28-30 with the teaching that unique identifiers are determined according to IEEE 1212 standards upon manufacturing

With respect to claim 7, the claimed plurality of devices communication with each other to determine capability information is met as noted above by devices in a network communicating to designate characteristics and create a topology map.

With respect to claim 8, the claimed “displaying the selected transmission path on a monitor” is taught with the teaching that vendor data may be displayed on a monitor in column 7, lines 36-38, which may inherently also serve as the “human interface” that helps the user understand how devices are connected, taught in column 12, lines 41-43.

With respect to claim 9, the claimed means and memory for storing capability information regarding signal formats of other devices is met by the memory and storage units seen in Figure 2, items 102-104. The claimed “analog input terminal” is not explicitly taught but examiner notes column 17, lines 14-17 teaches that the stream type may be analog media and therefore an analog connection is inherent. Furthermore, while an explicit digital interface and digital input/output terminal is not taught, as noted in column 8, lines 5-7 support for a digital television is provided, which inherently contains the claimed digital interface and digital input/output terminals. The claimed controller to produce transmission paths is met by processor 101 of Figure 2, which controls stream manager 335 and encompassed data format manager (col. 16:55-62, col. 9:1-5). To these means commands are issued to control communications as noted

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in response to claim 1. The claimed “decoder coupled to the digital input/output interface” is met by video/audio receiver (decoder) unit 106 of Figure 2, which may inherently be coupled to a digital I/O interface.

Claim 10 is met as noted above in response to claim 2.

With respect to claim 15, the claimed storage means being a configuration ROM is met by non-volatile memory (ROM) 103 of Figure 2.

With respect to claim 16, the claimed memory for storing capability information being RAM is met by volatile memory (RAM) unit 102 of Figure 2.

With respect to claim 17, the claimed controller operating according to a series of instructions is met by processor 101 operating according to instructions stored in memory units 102-104 of Figure 2.

Claim 18 is met as noted in response to claim 8 above.

With respect to claim 19, all of the limitations are met as noted above in response to claim 1 with the additional limitations of “displaying the selected transmission path on a monitor,” which is met by Ogino as noted above in response to claim 8.

Claims 20-25 are met as noted above in response to claims 2-7.

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11-14 and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino et al. (6,038,625).

With respect to claims 11-14, Ogino teaches forming possible transmission paths according to transmitting devices and signal formats as noted above. Ogino does not the claimed selector for automatically controlling a removable switch for selecting one of an output of the decoder and the analog terminal. Examiner takes Official Notice that it is well known in the art to automatically select an appropriate output based on the transmission format using a removable switch. It would have been obvious for one skilled in the art at the time of the invention to modify the system of Ogino by providing digital and analog terminals with selecting means to properly select the terminal corresponding to a data type in order to allow robust transmission capabilities.

With respect to claim 26, all of the limitations are met as noted above in response to claim 9 with the additional limitation of "a monitor coupled to one of an output of the decoder and the analog input terminal." Examiner takes Official Notice that it is well known to couple a monitor to decoder and analog input terminals. It would have been obvious to modify the system



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of Ogino to couple a monitor to decoder and analog input terminal in order to allow users to monitor data transmissions.

Claims 27-30 are met as noted above in response to claims 10-12 and 14.

Claims 31-32 are met as noted above in response to claims 15-16.

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ludtke et al. (6,233,611) teach a media manager for controlling media devices within a network and managing flow and formatting of data between the devices.

Ludtke et al. (6,496,860) teach a media manager for controlling flow and format between devices in a network.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan A Sloan whose telephone number is (703) 305-8143. The examiner can normally be reached on Mon-Fri 7:30am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703)305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NAS



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